



DEPARTMENTS OF THE ARMY AND THE AIR FORCE
NATIONAL GUARD BUREAU
111 SOUTH GEORGE MASON DRIVE
ARLINGTON, VA 22204-1382

NGB-ARL (700)

23 February 2000

MEMORANDUM FOR The Adjutants General of All States, Puerto Rico,
The Virgin Islands, Guam, and The District of
Columbia

SUBJECT: All States (Log Number I00-0019) Army National Guard
(ARNG) Waste Recycling and Minimization

1. Maintenance programs are the primary generators of hazardous and special waste in the ARNG. Each dollar unnecessarily spent handling, disposing, or resolving problems caused by waste, is a dollar that is taken away from training of our soldiers and enhancing readiness.
2. The purpose of this memorandum is to establish an objective environmental standard for maintenance facilities and operations. This will be manifested by efforts to reduce the waste stream for some materials, the cost of handling and disposing of other wastes, and replacing hazardous materials with safer ones.
3. Applications of waste reduction and recycling strategies will be dependent upon a State's specific situation. In one State, a contractor may be the most efficient method to achieve the objectives, while purchasing equipment may be best in another. I encourage each Surface Maintenance Manager to aggressively move his operation toward the objective standard.
4. All ARNG activities are encouraged to implement programs and goals to promote waste reduction and recycling. The programs listed are not all encompassing; therefore, any programs currently used that provide improved waste reduction should be continued. The suggested resources are not meant as an endorsement by the National Guard Bureau and should be researched by each State.

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- a. Used Oil Management: All oil changes should be performed at approved maintenance facilities. Currently, most used oil is disposed of through Defense Reutilization and Marketing Office contracts, however, oil may be burned, blending it with heating oil, or used to power steam cleaners. Also, the use of local contractors under a "No Cost Contract", or the Defense Logistics Agency, Closed Loop Oil Program for re-refined products, allows the contractor to pick up and dispose of waste oils, reducing the transportation and disposal cost.
- b. Antifreeze Recycling: Achievement of antifreeze recycling goals supports waste reduction initiatives for Toxic Release Inventories. Activities should establish a reduction goal of 100 percent for Ethylene Glycol. All activities should examine the use of on-site antifreeze recyclers; either through purchasing recycling equipment, using the Defense Logistics Agency closed loop program, or contractors to provide this service.
- c. Wash Rack Wastewater Recycling: There are wash rack systems that provide oil and water separators for recycling wastewater. Some systems provide closed loop recycling of wastewater for operational use. General Services Administration (GSA) contracts provide excellent resources for this process.
- d. Fuel and Oil Filtering and Recycling: There are portable systems for oil and fuel transfers, filtration, polishing, and water removal, to include sub-micron solids in contaminated products. These systems should be considered in States that experience significant quantities of bad Petroleum Oils and Lubricants products. Commercial vendors can provide equipment for this process.
- e. Propane Cylinder System Recycling: Propane recycling systems allows removal of the sleeves and valves and recycling of empty cylinders as scrap metal.
- f. Environmentally Friendly Parts Washer: There are parts washers that reduce hazardous waste generation and eliminate solvent drainage, making a significant contribution to the waste management effort.

NGB-ARL

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The systems have internal filtration and are compatible with most petroleum type solvents and cleaning solutions.

g. Environmentally Friendly Solvents: There are several authorized solvents for cleaning parts and weapons that are environmentally friendly. Some solvents have been tested and procured for compliance with recent environmental regulations. Environmentally friendly solvents are available in the Army supply system, such as odorless hydrocarbons and hydrocarbons with D-Limon. The solvent National Stock Numbers are listed in the Army Petroleum Center's Technical Advisory Message number 88 121800Z AUG 96. Additionally, some States are successfully distilling solvents for reuse.

h. Environmentally Friendly Sorbents: There are non-marine, non-toxic sorbents that can absorb oil and gasoline fluids and repel water. Some sorbents are universal for absorbing any fluids and represents an excellent environmentally friendly way to control and contain spills. There are commercial and GSA contractors that provide these items.

i. Dry Cell Battery Recycling: There are rechargeable batteries available for many systems that can greatly reduce waste. These batteries offer improved performance and the potential for a significant cost avoidance. The Army's directive to reduce battery cost by 50 percent, and research in this area, has resulted in the Communications and Electronics Command's development of the next generation of rechargeable batteries. Rechargeable batteries are available through the Army supply system and from commercial vendors.

j. Lead Acid Battery: All activities must stop draining and removing acid from Lead Acid Batteries. This process represents a serious environmental risk. There are sealed batteries available that only requires testing and charging. Battery contracts provide an excellent way to reduce ARNG handling of these items.

NGB-ARL

SUBJECT: All States (Log Number I00-0019) Army National Guard
(ARNG) Waste Recycling and Minimization

k. Filter and Paint Can Crushing and Recycling: Some States are already using filter crushers which reduces the filter size 75-80 percent and removes 95-98 percent of the residual oil. Paint can crushing also reduces disposal and associated costs. Filter and paint can crushers are available through several GSA and commercial contractors.

1. Soiled Rags and Coverall Recycling and Disposal: All maintenance activities are encouraged to use contractors that provide services to remove and replenish soiled clean rags. This service can also be extended to include coverall cleaning and recycling.

5. Many States have already made great strides to minimize waste and promote recycling. The established Model Organizational Maintenance Shop in New Mexico provides an excellent source for information on waste reduction processes.

6. There are several links to Department of Defense activities, and Environmental references for waste minimization, on the Logistics Support Activity website at: www.ett.redstone.army.mil.

7. Your efforts and involvement in the program are critical to its success. Please help us make our maintenance shops safe, cost effective, and environmentally friendly.

8. This memorandum will expire one year from date of publication, unless sooner rescinded or superseded.

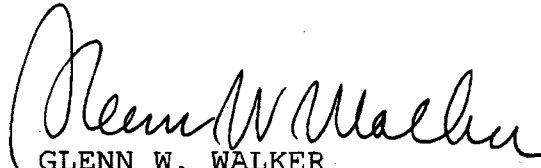
9. Point of contact is MAJ Chris Chandler, Petroleum and Water Item Manager, 703-607-7498 or DSN 327-7498.

NGB-ARL

SUBJECT: All States (Log Number I00-0019) Army National Guard
(ARNG) Waste Recycling and Minimization

10. The Army Logistics Division, Keeping the Guard Ready.

FOR THE CHIEF, NATIONAL GUARD BUREAU:



GLENN W. WALKER
Colonel, GS
Chief, Logistics Division

CF:

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DOL Each State

State Inspector General

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